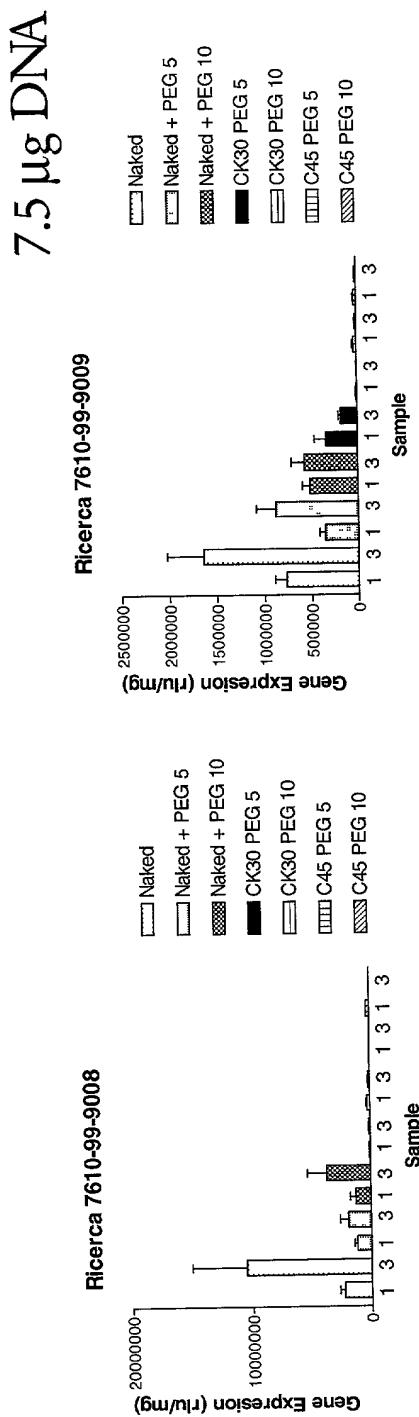


Fig. 1

Fig. 2



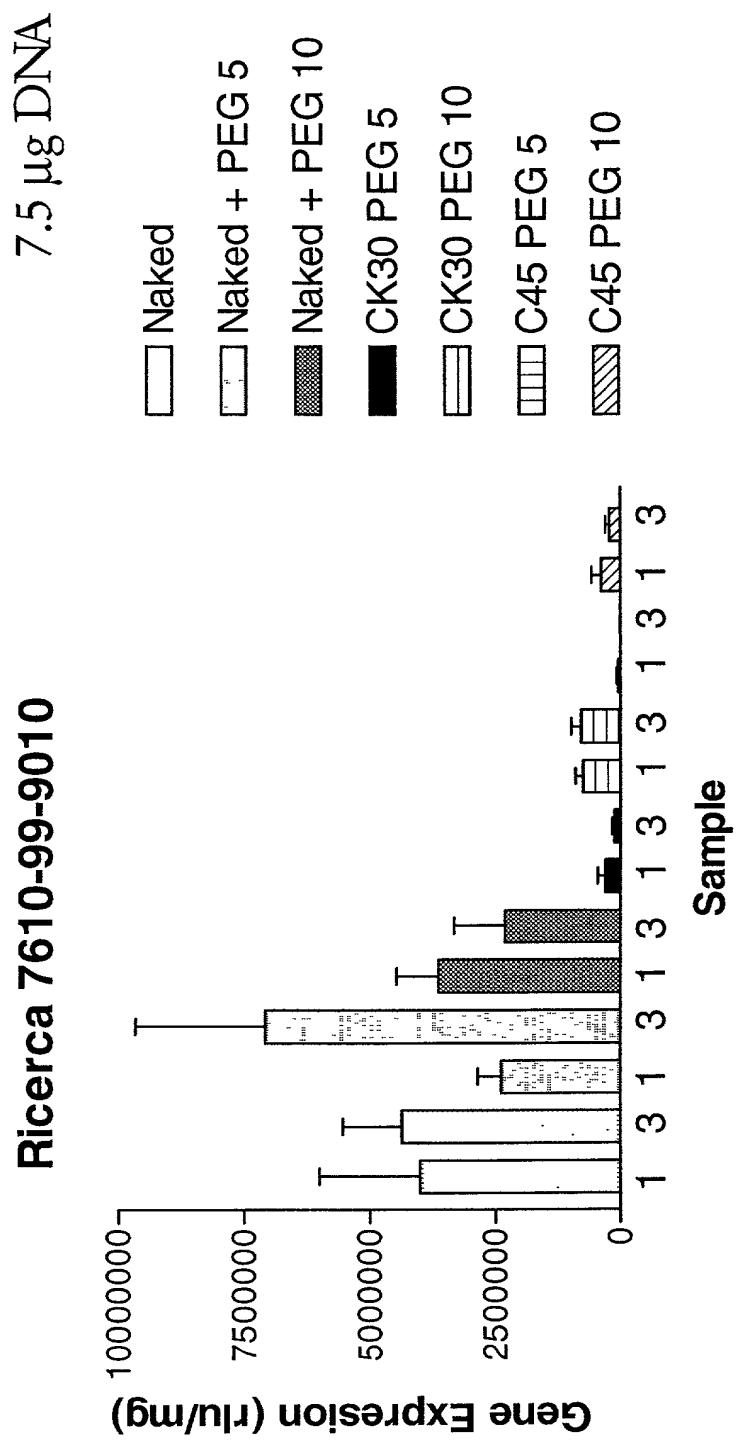


Fig. 3

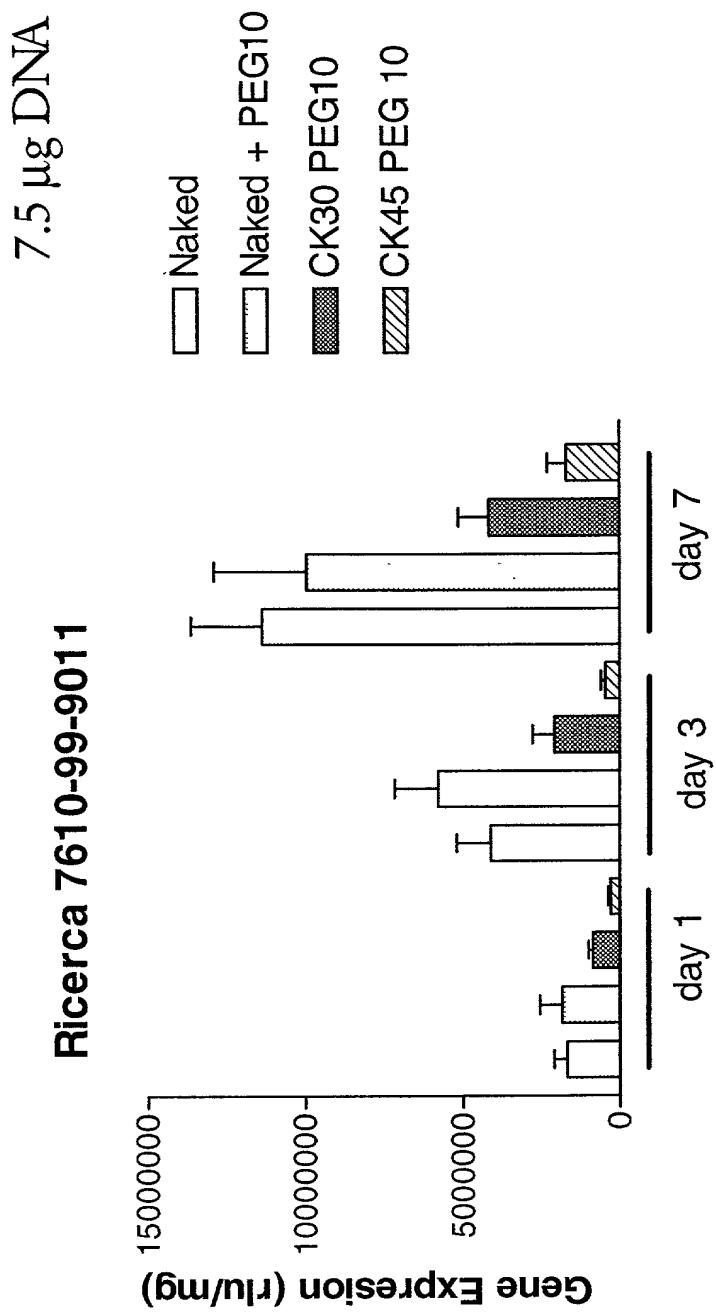


Fig. 4

Fig. 5

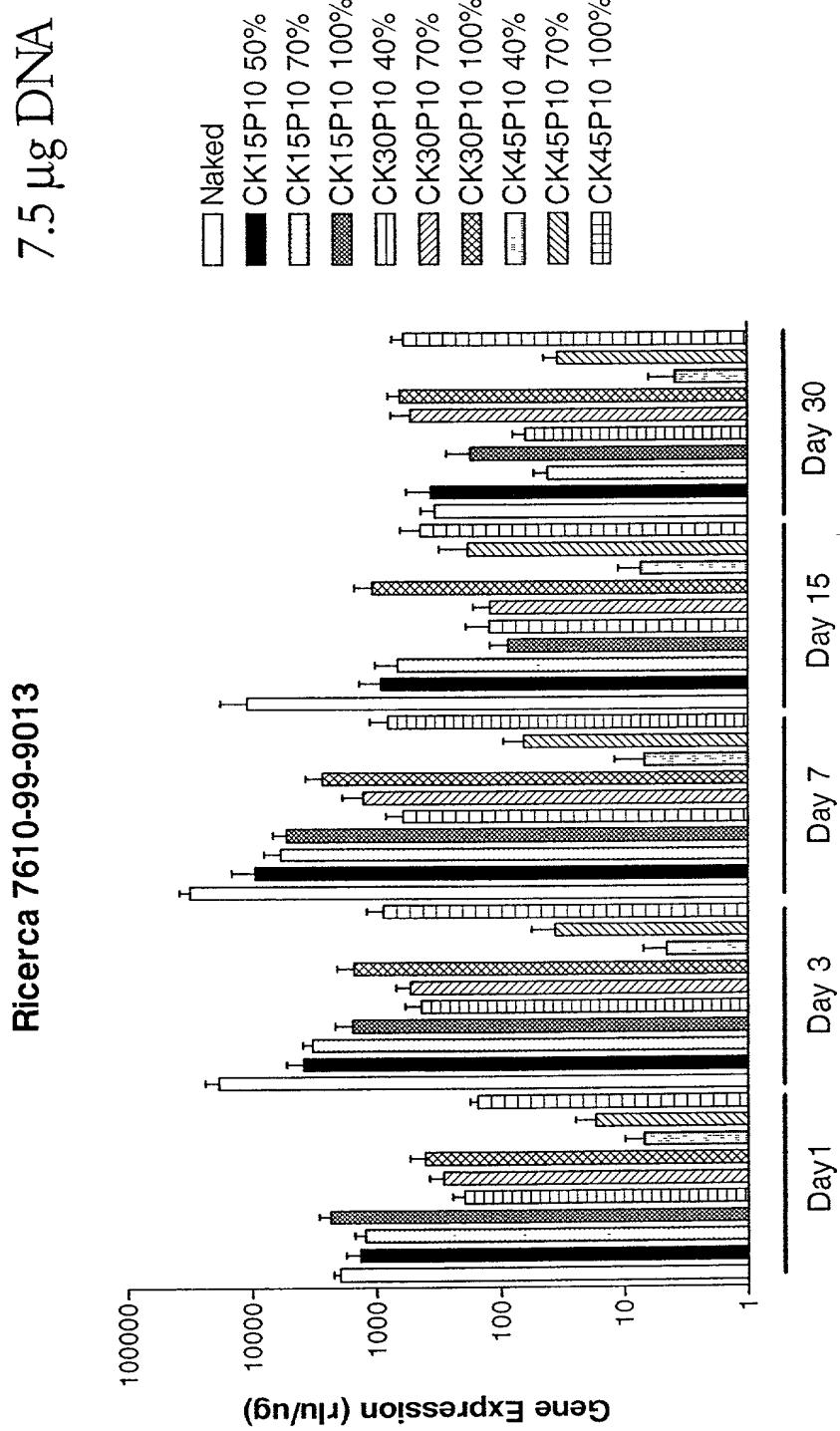


Fig. 9

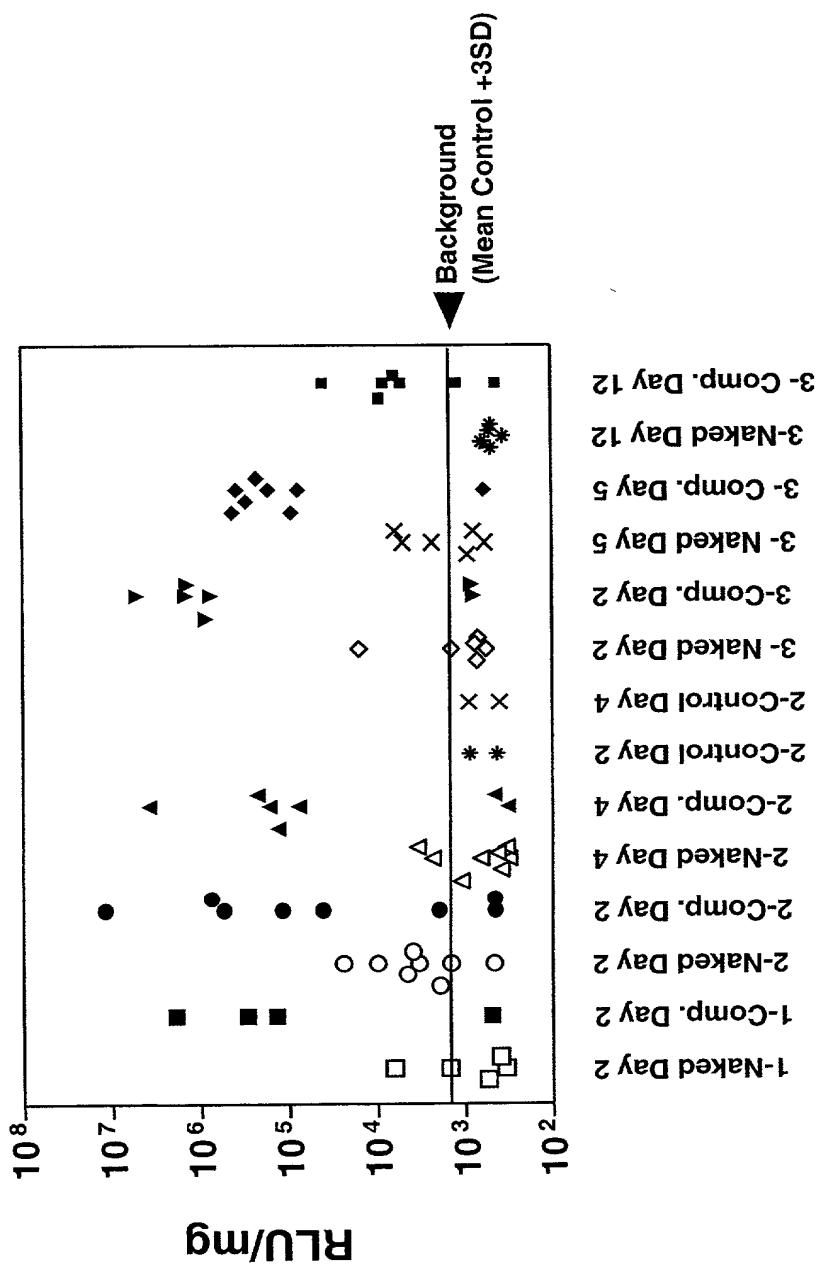
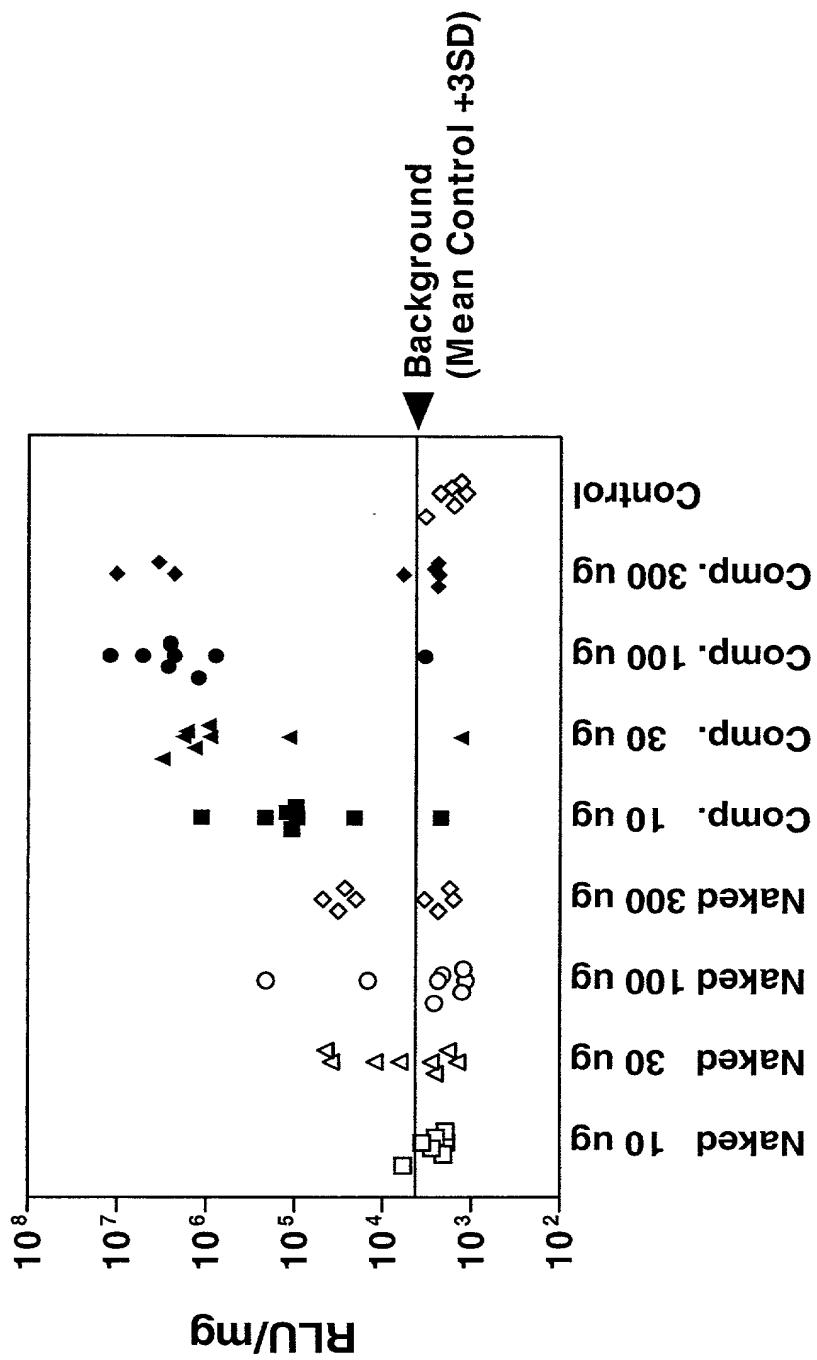


Fig. 7A



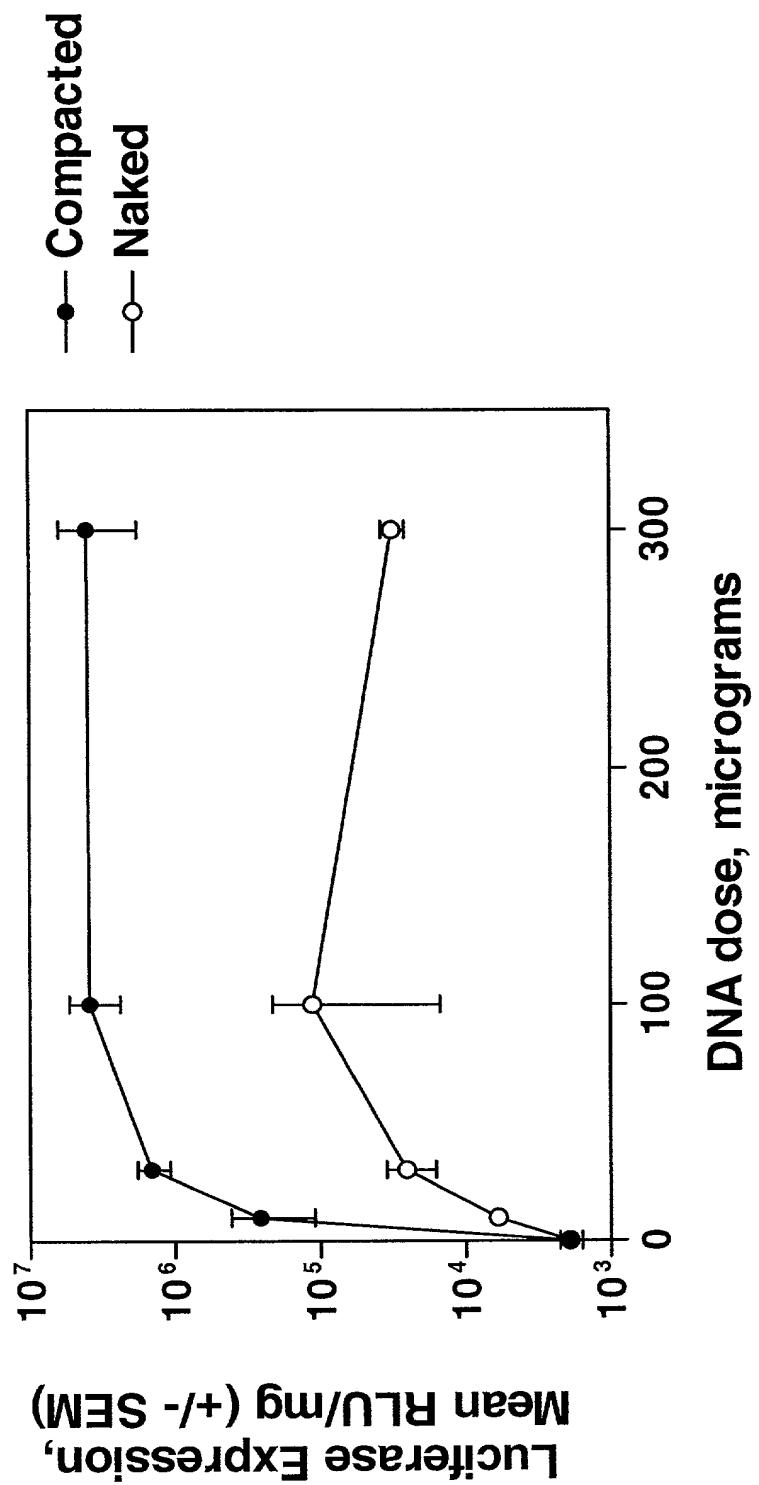


Fig. 7B

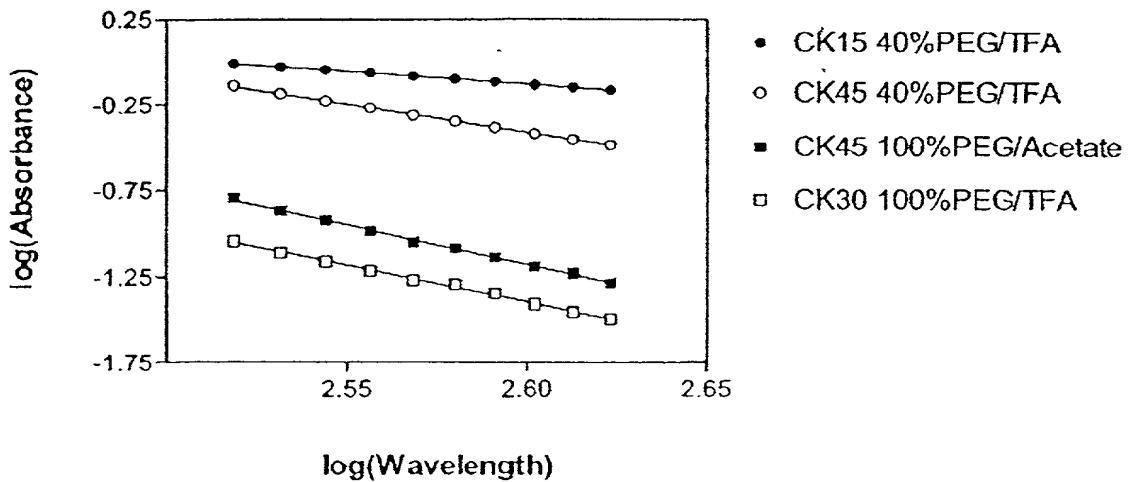


Fig. 8

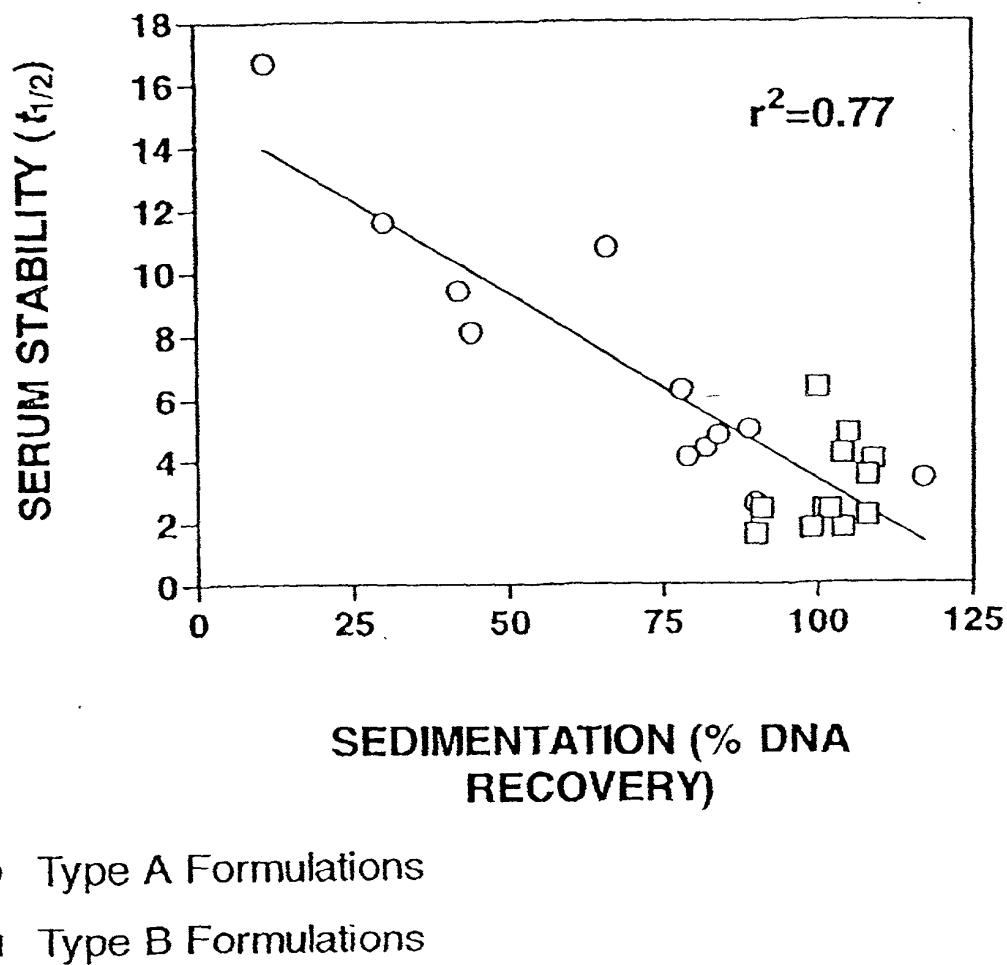


Fig. 9A

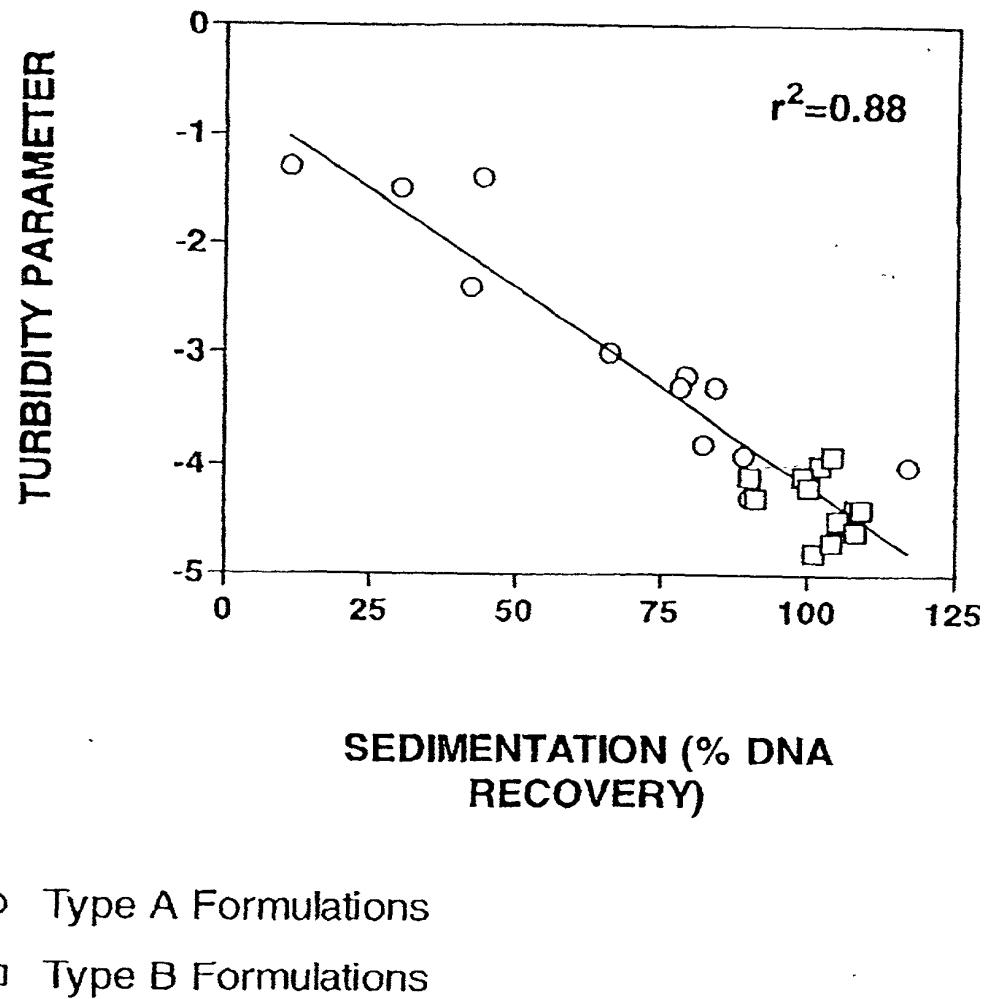


Fig. 9B

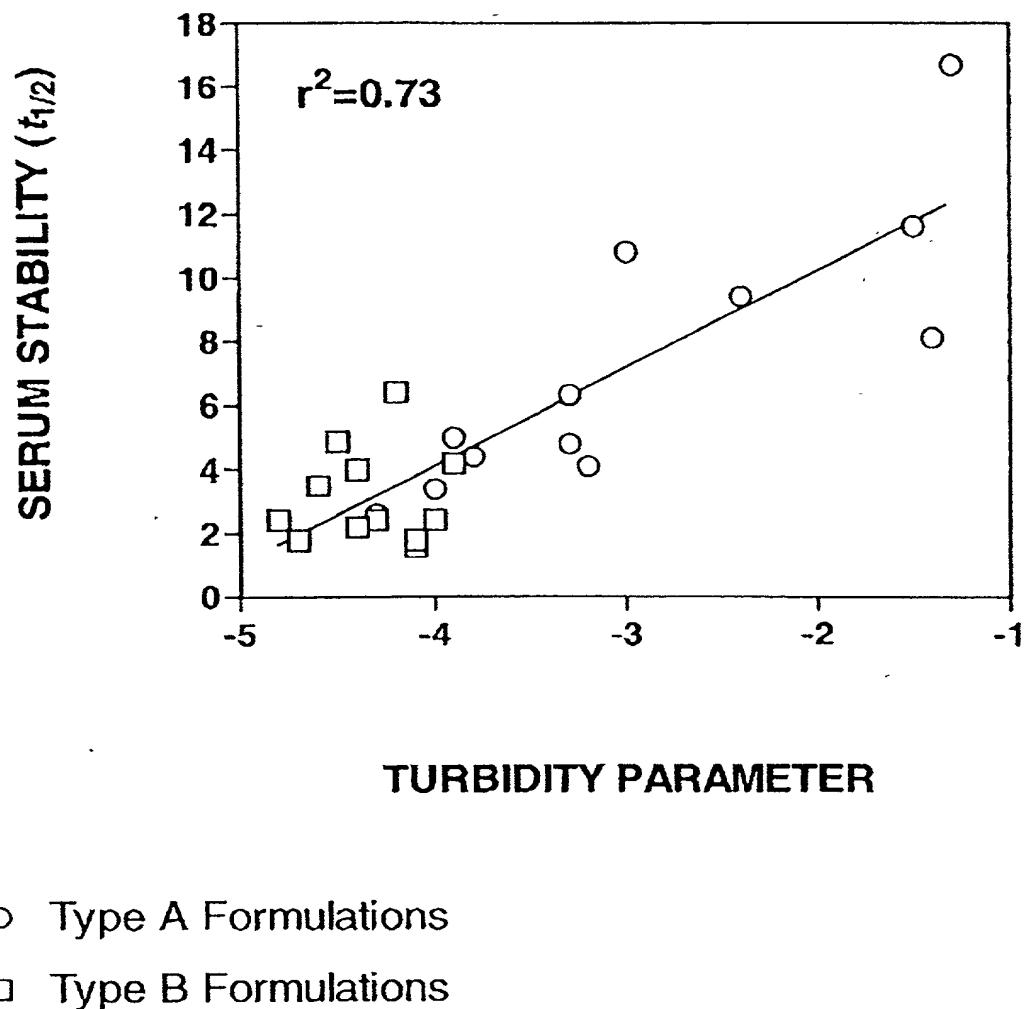


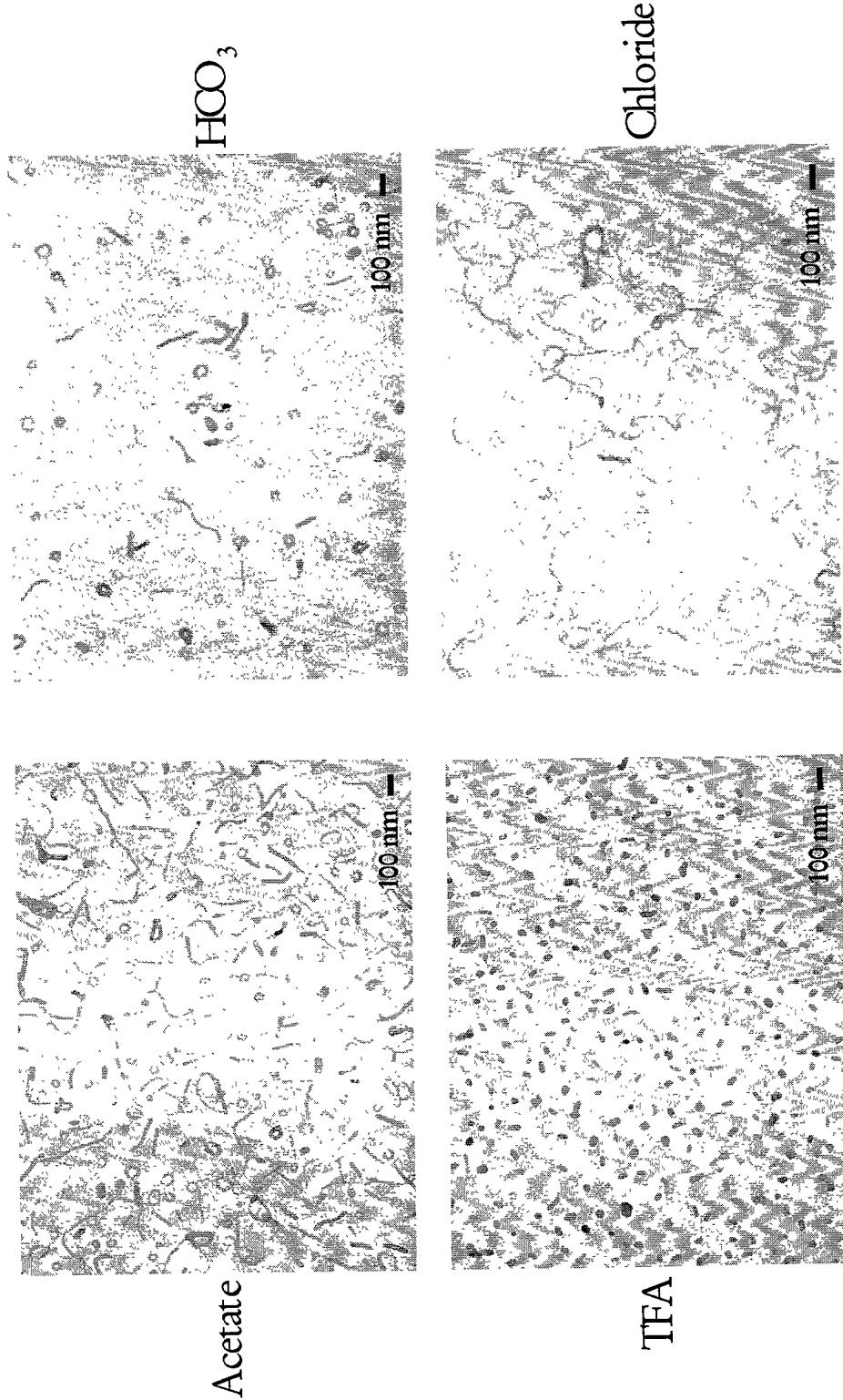
Fig. 9C

PROPERTIES OF VARIOUS PLASmin™ FORMULATIONS

Formulation #	Counterion	Polylysine	PEG Content (%)	t _{1/2} In Serum (h)	Turbidity Parameter	Sedimentation (%)
1	TFA	CK ₁₅	40	11.6	-1.5	30
2			60	10.8	-3.0	66
3			80	9.4	-2.4	42
4			100	16.7	-1.3	11
5	TFA	CK ₃₀	40	8.1	-1.4	44
6			60	4.1	-3.2	79
7			80	3.4	-4.0	117
8			100	2.6	-4.3	90
9	TFA	CK ₄₅	40	6.3	-3.3	78
10			60	4.4	-3.8	82
11			80	4.8	-3.3	84
12			100	5.0	-3.9	89
13	Acetate	CK ₁₅	40	2.4	-4.8	101
14			60	1.8	-4.7	104
15			80	1.6	-4.1	90
16			100	2.4	-4.0	102
17	Acetate	CK ₃₀	40	1.8	-4.1	99
18			60	2.4	-4.3	91
19			80	2.2	-4.4	108
20			100	4.0	-4.4	109
21	Acetate	CK ₄₅	40	6.4	-4.2	100
22			60	4.2	-3.9	104
23			80	4.9	-4.5	105
24			100	3.5	-4.6	108

Fig. 9D

Fig. 10



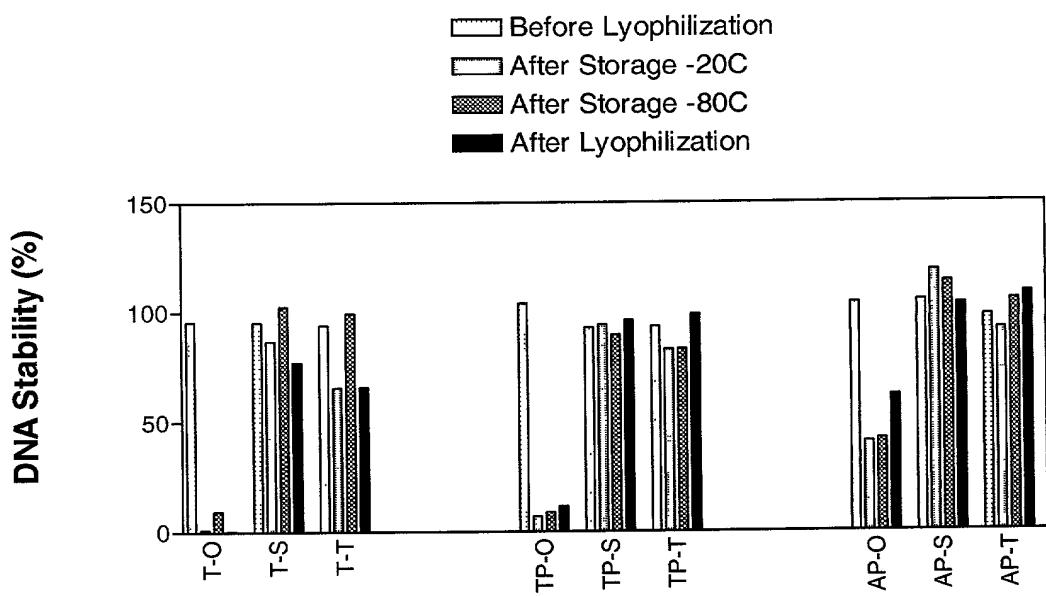
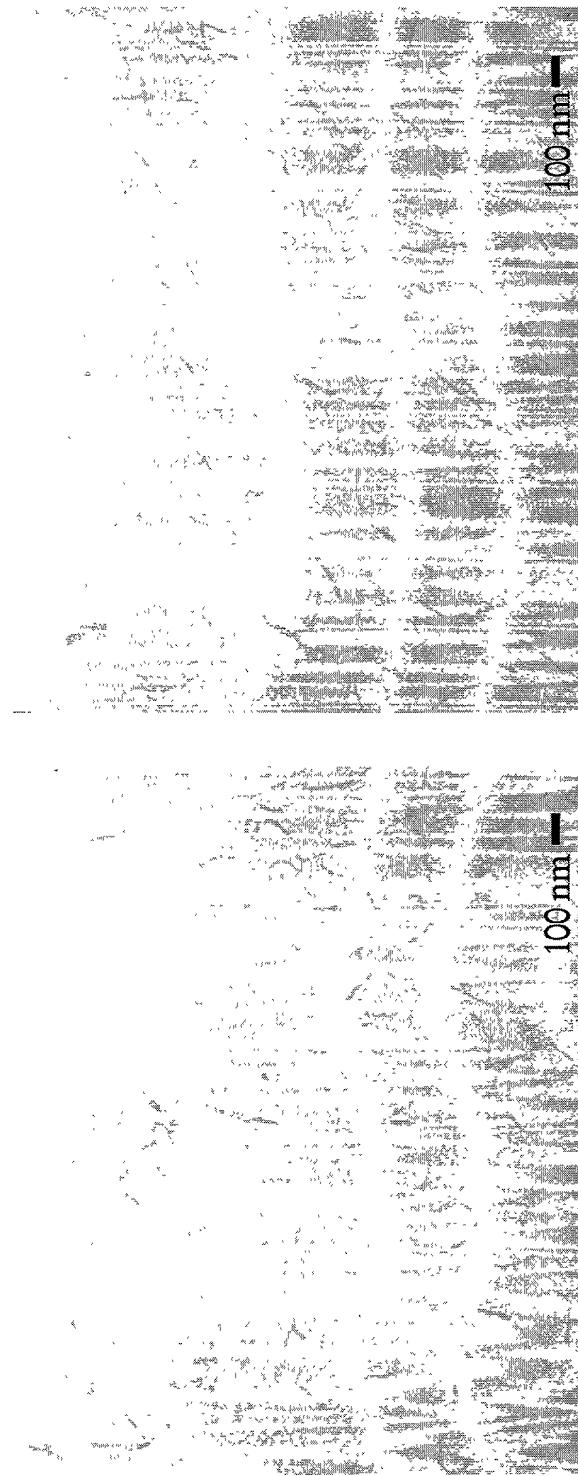


Fig. 11

Sample	Before Lyophilization	After Lyophilization
CK30TFA		
Original		
0.5M Sucrose	-4.31	ppt
0.5 M Trehalose	-3.81	-4.10
CK30P10k - TFA	-4.70	-4.01
Original		
0.5M Sucrose	-4.51	NE-4.61
0.5 M Trehalose	-4.15	
CK30P10k - Acetate	-4.65	-4.66
Original		-3.86
0.5M Sucrose	-4.76	
0.5 M Trehalose	-4.56	-3.32
	-4.57	-4.39

Fig. 12



AFTER

BEFORE

Fig. 13

U.S. Serial No.: New Application Atty. Dkt. No.: 03659.00009
Inventor: Mark J. COOPER et al.
Title: LYOPHILIZABLE COMPACTED NUCLEIC ACIDS



ATELIER

BEFORE

Fig. 14

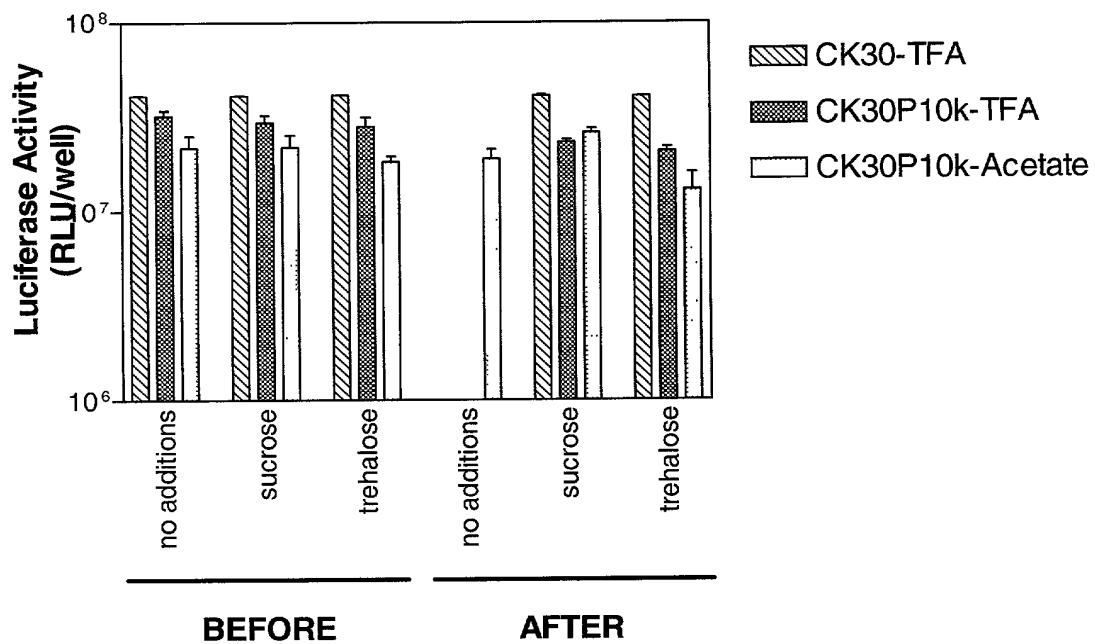


Fig. 15

Polylysine	Counterion	DNA Recovery	Turbidity Parameter
CK30P10k	Acetate	100	-4.2
	Bicarbonate	98	-4.0
	Chloride	101	-5.2*
	TFA	97	-4.6
CK45P10k	Chloride	105	-4.0

* This value is lower than expected due to very low light scattering by this DNA formulation indicating that plasmid is not compacted, in agreement with electron microscopy and gel electrophoresis data.

Fig. 16

Magnification 40,000. The bar shows 100 nm

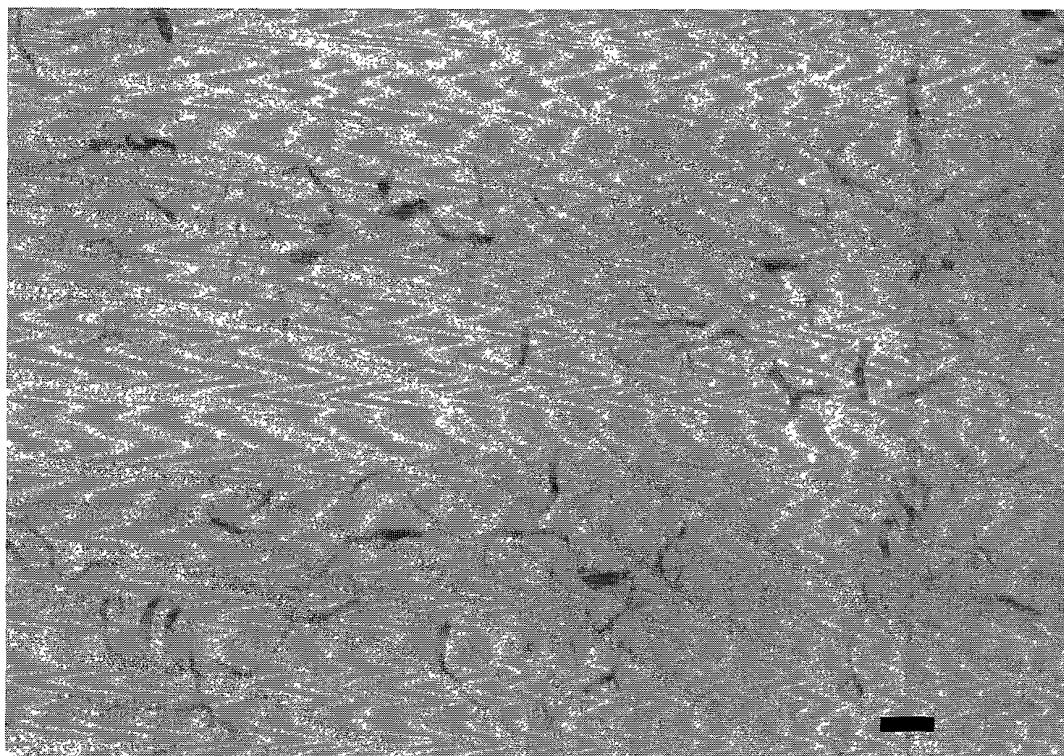


Fig. 17

Lane 1: DNA size markers.
Lane 2: naked DNA before compaction.
Lanes 3, 6, 9, and 12: compacted DNA.
Lanes 4, 7, 10, and 13: compacted DNA that was incubated in 75% mouse serum at 37 °C for 2 hr and trypsinized before loading.
Lanes 5, 8, 11, and 14: compacted DNA that was only trypsinized before loading.

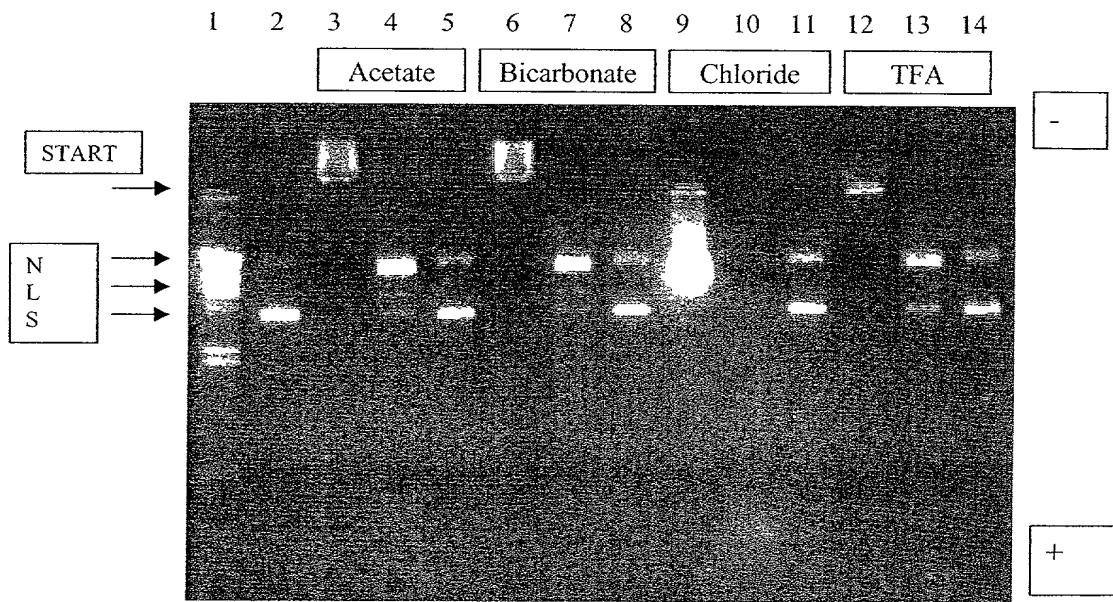
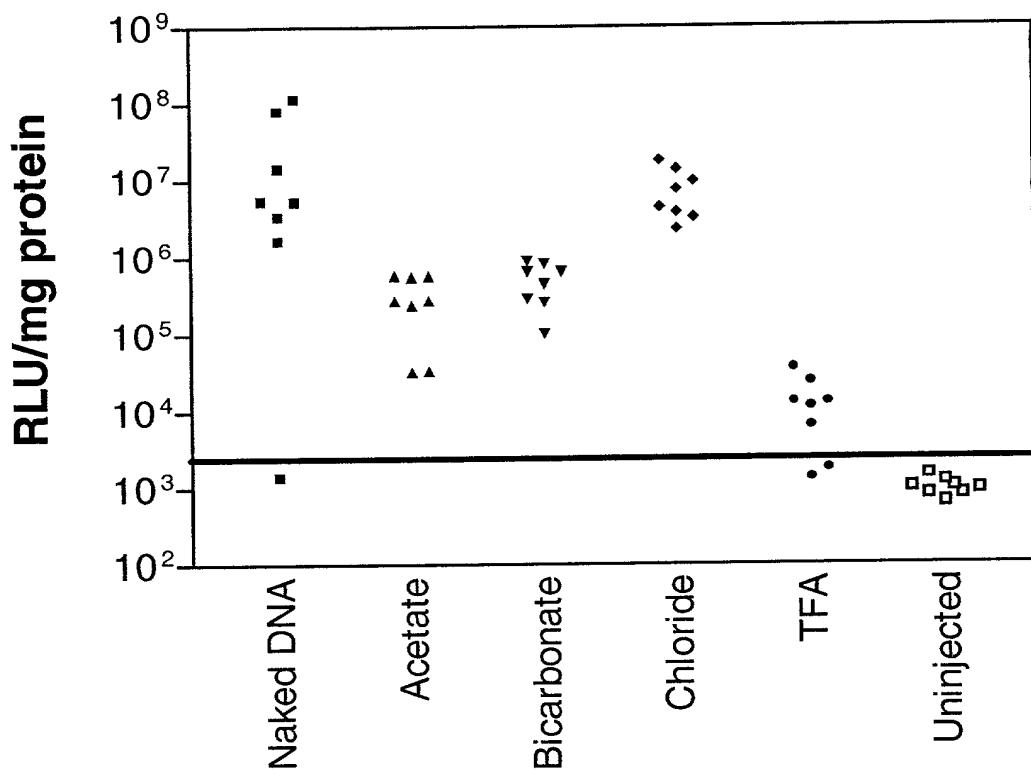
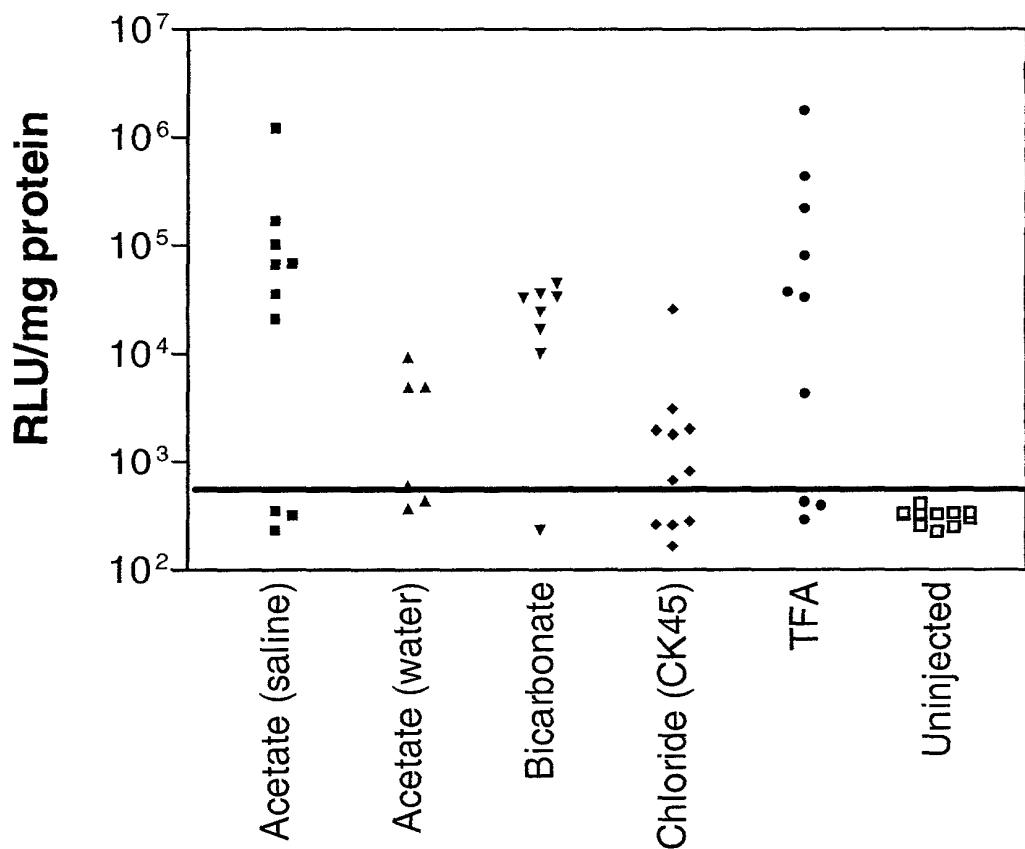


Fig. 18



Each point represents one animal. The solid line indicates background signal of luciferase assay. Dose 100 μ g DNA.

Fig. 19



Each point represents one animal. The solid line indicates background signal of luciferase assay. Dose 100 μ g DNA.

Fig. 20